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THE ROLE OF TRANSPORT IN TRADE BETWEEN DEVELOPING COUNTRIES

Report by the UNCTAD secretariat

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Abbreviations

c.i.f.	cost, insurance, freight
DMEC	Developed market-economy country
f.o.b.	free on board
GATT	General Agreement on Tariffs and Trade
IMF	International Monetary Fund
MFN	Most favoured nation
NVOCC	Non-vessel-operating common carrier
SITC	Standard International Trade Classification
TEU	twenty-foot equivalent unit

Explanatory notes

In the present study the designation "developing countries" and "developed market-economy countries (DMECs)" accords with the UNCTAD Handbook of International Trade and Development Statistics, 1990. Unless otherwise specified, the expression "developed countries" is used to include DMECs and countries of Central and Eastern Europe.

South-South trade refers to trade between developing countries; North-North trade refers to trade between DMECs, while North-South and South-North trade is between developing countries, on the one hand, and DMECs, on the other. Where trading relations with groups of countries other than DMECs and developing countries are involved, this will be clarified in the report. Products are classified according to the Standard International Trade Classification, (SITC) Revision 2.

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A. Introduction

1. This report has been prepared in pursuance of resolution 65.III (XIV) of the suspended Committee on Shipping, which requested that the UNCTAD secretariat prepare, upon request, studies on the maritime transportation of selected commodities which are of particular interest to developing countries as well as to prepare studies which will analyse the impact of conditions of ocean transport services, particularly ocean freight rates, on exports of selected manufactured goods from developing countries, and on exports in trades between those countries, in order to provide them with information required for making appropriate decisions in this area. Subsequently, the Trade and Development Board, in decision 385 (XXXVII), at the first part of its thirty-seventh session (October 1990), and in the context of the work programme of the UNCTAD Committee on Economic Cooperation among Developing Countries, decided, *inter alia*, to call upon the Secretary-General to undertake, in cooperation with member States, an in-depth study on the main impediments and disincentives which adversely affect the expansion of trade among developing countries; and to explore those measures and alternatives of relevance with recommendations for future consideration in the Trade and Development Board. In response to decision 385 (XXXVII), the secretariat has prepared a report for submission to the Committee on Economic Cooperation among Developing Countries. The present report summarizes the main findings and conclusions of that report.

2. The report is based on information obtained from a survey conducted by the UNCTAD secretariat among institutions in developed and developing countries and from United Nations statistical sources.

B. Background

3. While transport has generally been treated as part of unavoidable production and marketing costs, its supply and pricing have been the subject of policy regulation in individual countries as well as in international organizations. This has been the case, for example, with regard to the liner sector of international ocean transportation which has been regulated through, among others, the United Nations Convention on a Code of Conduct for Liner Conferences, and regulations established at the national level as well as regional economic integration groupings such as the European Economic Community.

4. Measures aimed at influencing transport costs have not been limited to regulating pricing practices of liner conferences. In recent years, many countries have adopted measures to liberalize the transport sector in order to promote efficiency and reduce operational costs. This has included the privatization or commercialization of sea ports, intermodal facilities, forwarding agencies, shipping companies and other maritime institutions.

5. In addition, transport users and countries have at their disposal various measures for reducing transport costs. For example, cargo bulking or consolidation, better integration of purchasing and transportation arrangements, improved information and documentation systems, etc., are feasible means of reducing costs. In the transportation of commodities in bulk, the employment of large ships has led to the achievement of significant economies of scale and savings in ocean transport costs. Many exporting countries have therefore embarked on improvements in port infrastructure by constructing high-capacity, deep-water loading and unloading terminals, faster handling equipment and improved storage facilities, in order to accommodate large ships, reduce operating costs and thus promote their exports' competitiveness in foreign markets.

6. It is therefore evident that it is important to adopt policy measures regarding transport and its role in international trade since there exists scope to reduce or minimize costs, and also since the cost reduction or minimization may have the same general influence on trade as the removal or reduction of tariffs and non-tariff measures.

7. This study has assessed the influence of transport on trade in goods between developing countries, based on data for the 1970s and 1980s. The data relates to seaborne trade or the sea-leg part of multimodal transport services and excludes services provided by other transport modes. A large portion of internationally traded goods, including South-South trade, is transported by sea, especially bulk cargoes and heavy, low-valued primary commodities, although a large part of cargoes may be shipped intermodally. High-value, light-weight manufactured and some perishable products are likely to be shipped by air or by road, the latter being the case where the trading partners are linked by land transport.

8. In limiting the study to ocean transport, it is nevertheless recognized that supply or cost constraints in inland transport within individual countries may be quite important, especially in the present circumstances of rapid growth in door-to-door transport services. Indeed, in some instances, while there may be adequate ocean transport, inland transport bottlenecks may impede trade. However, it is beyond the scope of the present study to examine conditions of inland transport in developing countries. Furthermore, the problems of inland transport would most likely affect not just South-South trade but also North-South and South-North trade.

C. Summary of findings

9. The promotion of South-South trade is a central component of the programme on Economic Cooperation among Developing Countries. A number of writers have presented arguments in support of the expansion of South-South trade. [1] These include, among others:

(a) The existing high level of dependency by the South on capital and other manufactured imports from the North, which is in large part due to the ability of established producers in the North to deter competition from the South, and also their ability to adapt their production more readily to changing demands and to diversify into new products than new firms in the South, thus enabling them to maintain cost and price advantage over potential entrants from the South. To overcome these constraints, it has been suggested to establish South-South preferential tariffs to enable producers in the South to enter Southern markets;

(b) On the assumption that trade is the main determinant of growth, it has been pointed out that the improbability of DMECs fast regaining their earlier high growth rates experienced up to the early 1970s has meant that South-South trade must expand in order to make up for the diminished trade opportunities in the North;

(c) Gains from North-South trade tend to be distributed asymmetrically, with trading partners in the North deriving more benefits, but South-South trade may generate gains which would be distributed more equitably; [2]

(d) The expansion in protectionism in the North, especially the use of non-tariff barriers has meant that such barriers would likely increase as the ability of northern markets to absorb products from the South diminished. It would, therefore, be prudent to promote South-South trade in order to expand alternative markets which could absorb additional products, especially manufactures, from the South.

10. It is beyond the scope of the present report to determine whether the future of developing country trade should involve a shift of emphasis from North-South and South-North to South-South trade. [3] The purpose is to assess as reasonably as possible the extent to which factors related to transport may have impeded the growth of South-South trade and, if so, to suggest corrective measures. In this connection, South-South trade should be viewed as a subset of the multilateral trading system which for various historical and economic factors may have been kept at low levels relative to North-North, North-South and South-North trade. Consequently, the possible existence, for example of relatively high transport costs in South-South trade could be treated as an impeding factor and be regarded as a trade barrier like tariffs and non-tariff measures which distort trade. Policies which aim at removing biases in transport costs should therefore be viewed in a similar way as the removal of tariffs and other trade-distorting measures.

11. The distribution of developing country exports and imports between developing countries and developed market economy countries (DMECs) is summarized in figure 1. Tables 1 and 2 provide details of the distribution of exports and imports by product. [4] Several factors have been suggested to explain the relatively low volume of South-South trade. These include, *inter alia*:

(a) Trade policies adopted by the developing countries themselves, such as import substitutions supported by tariffs and non-tariff measures;

(b) The existence of small internal markets in many developing countries which limit the scope for the development of industry specialization and hence constrain opportunities for trade expansion.

(c) Historical factors which restrict the establishment of new trading links including South-South trade, and the tendency of many developing countries to look to developed countries as the only markets providing major opportunities for the expansion of their exports.

(d) Established consumer tastes with preference for goods imported from the North and a resistance to similar products imported from other countries in the South,

(e) Cumbersome administrative and legal procedures, and the existence of stringent exchange controls and rules of origin for traded goods,

(f) The lack of adequate trade information between developing countries,

(g) A structure of production which encourages the continuation of North-South trade without encouraging South-South trade; in certain cases traditional exports from developing to developed countries are maintained by agreements providing preferential access to the domestic markets of the developed countries;

(h) Tied bilateral aid between developed and developing countries under which recipient countries are normally required to purchase products from the donor countries; quite often such requirements tend to perpetuate trade between the two countries long after the completion of the aid programme, for example, on account of a need to obtain components required for maintaining productive activities established under the aid programme; and

(i) The existence of national currencies which are not directly convertible with each other, thus complicating transfer of payment arrangements.

12. A number of initiatives, such as the creation of economic integration groupings among developing countries, and the establishment of the Global System of Trade Preferences among developing countries (GSTP), have been undertaken both at the regional and international levels aimed at reducing tariffs and non-tariff barriers in South-South trade. However, an important linkage exists between trade and transport, and a number of previous empirical studies have demonstrated that, like tariffs and non-tariff measures, transport can be an impediment to trade. [5] The present study has examined the separate influences of the volume of transport supply and of transport costs on trade. [6] As regards the supply of transport, during the 1970s and 1980s available shipping services were generally in excess of tonnage requirements. Consequently, overall there were adequate shipping services to cater for total world trade. Thus world trade did not appear to have been impeded by a lack of shipping services, although in some segments of South-South trade the available services may not have been adequate to meet actual or potential requirements.

13. Supply of shipping services to South-South [7] trade falls under three main categories: (a) wayport calls made by mainline operators in North-South and around-the-world services, (b) dedicated end-to-end South-South inter-regional services and (c) dedicated end-to-end South-South intra-regional services. During the 1970s and 1980s a large number of shipsailings were provided in North-South, South-North and around-the-world services with potential tonnage capacity for South-South trade via wayport services.

14. However, while practically all the countries in the developing regions in Africa, Asia and the Pacific, Latin America and the Caribbean appear to have had access to wayport services, the services tend to have certain limitations: (a) their ability to cater for purely South-South trade is dependent on sailing schedules and space availability determined by the North-South trade requirements, and consequently the availability of space to South-South cargo tends to be erratic; (b) cargo volumes in most South-South trades tend to be limited and this reduces the ability or willingness of mainline operators to give proper consideration to South-South cargoes in their voyage plans; (c) most mainline North-South services are fully containerized, while South-South trade tends to have a large component of breakbulk cargoes. Consequently, the ships serving North-South trade may in some instances be employed in South-South trade only at a high cost; (d) freight rates for cargoes on wayport calls tend to be determined by owners on an ad hoc basis, and they tend to be relatively high, which in turn may discourage South-South trade itself.

Figure 1

Distribution of developing country exports and imports by selected importing/exporting groups of countries, 1978-1990

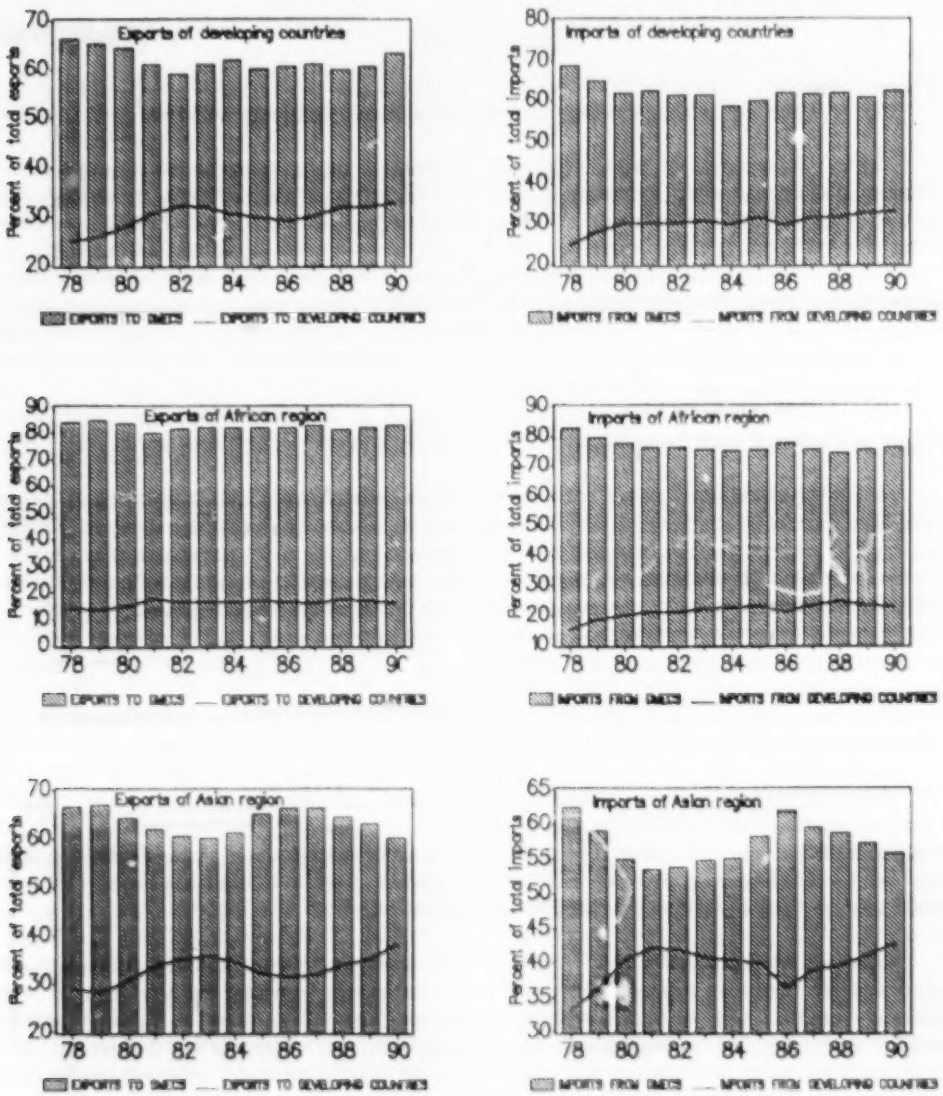
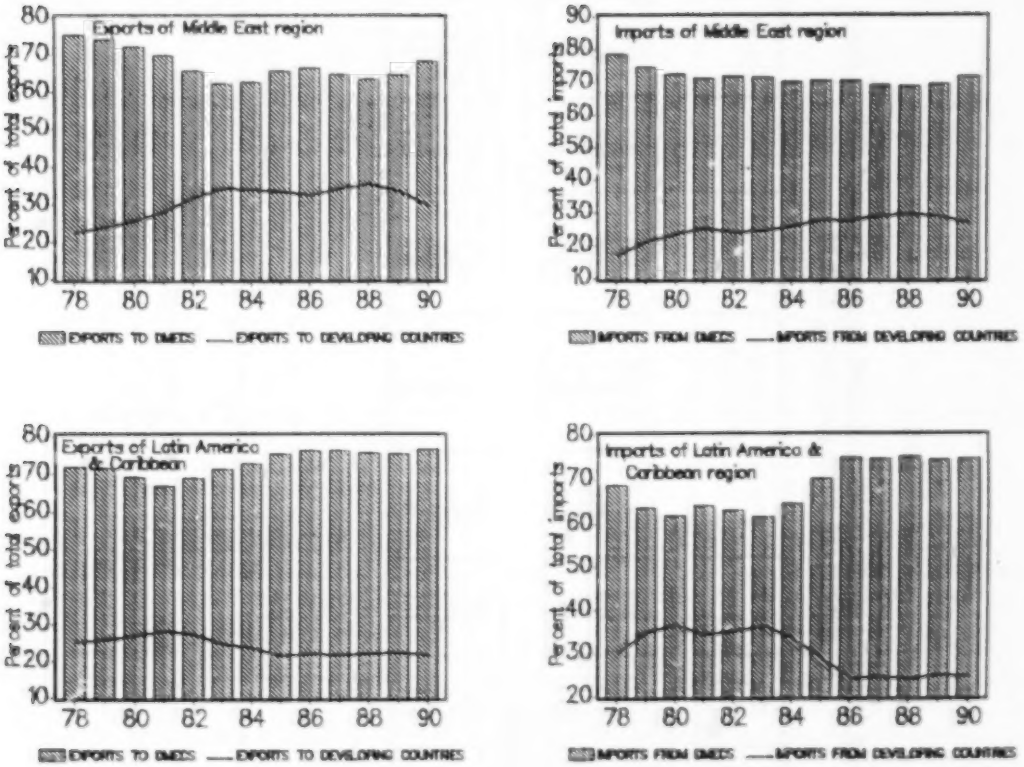


Figure 1 (continued)



Source: IMF, Direction of Trade Yearbook, 1991.

Table 1

Distribution of developing country exports, by product, between developed market-economy countries and developing countries, 1985-88

Year	Food	Raw materials	Ores and minerals	Fuels	Non-ferrous metals	Total primary products	Iron and steel	Chemicals	Other semi-manufactures	Machinery, transport equipment	Textiles	Clothing	Other consumer goods	Total manufactures	Total exports
(a) Exports to developed market economy countries as percentage of total exports															
1985	63.2	61.6	75.8	70.5	74.7	68.8	50.0	46.2	62.4	65.3	43.3	87.9	84.0	67.1	68.1
1986	68.3	58.6	74.2	67.3	74.0	67.6	51.6	44.5	65.3	70.0	42.0	88.6	85.4	69.5	68.5
1987	68.3	61.8	72.1	67.7	71.3	67.7	59.6	43.9	66.6	70.6	42.3	89.1	83.8	70.3	69.0
1988	66.0	58.1	73.6	64.5	70.7	65.2	58.2	41.3	66.9	68.8	40.8	88.7	81.9	68.4	66.9
(b) Exports to developing countries as percentage of total exports															
1985	22.2	10.0	15.1	26.4	18.7	24.9	35.3	44.5	32.7	28.1	41.5	10.2	12.4	26.4	25.5
1986	19.8	11.6	17.2	28.6	21.4	25.3	35.9	46.0	30.1	25.7	42.0	9.6	11.4	24.8	25.1
1987	19.5	11.1	20.1	29.4	23.8	26.0	34.2	45.1	27.9	24.3	41.9	9.0	11.6	23.7	24.9
1988	21.6	11.7	18.1	32.1	23.4	27.6	33.1	43.9	28.2	25.4	42.5	9.2	13.7	24.9	26.2

Source: Computed from GATT, International Trade, 1989-90

Table 2

Distribution of developing country imports, by product, between developed market-economy countries and developing countries, 1985-88

Year	Food	Raw materials	Ores and minerals	Fuels	Non-ferrous metals	Total primary products	Iron and steel	Chemicals	Other semi-manufactures	Machinery, transport equipment	Textiles	Clothing	Other consumer goods	Total manufactures	Total exports
(a) Imports from developed market-economy countries as percentage of total exports															
1985	61.2	52.3	56.0	11.8	70.3	36.5	74.8	77.9	72.2	82.7	48.2	38.7	80.9	77.3	63.0
1986	61.3	53.1	57.8	13.1	69.6	40.9	71.5	77.9	70.1	83.0	45.0	34.2	78.1	76.3	65.2
1987	62.5	53.8	54.5	12.4	66.4	40.5	73.1	77.8	69.4	81.8	37.6	30.9	77.4	74.8	64.4
1988	62.2	52.2	54.4	12.2	68.5	41.9	72.1	76.4	69.3	80.1	33.9	31.8	76.5	73.3	64.2
(b) Imports from developing countries as percentage of total exports															
1985	29.3	12.3	28.7	76.0	27.7	52.4	15.7	15.6	20.6	11.5	37.9	48.4	13.6	15.8	27.4
1986	28.9	13.6	28.1	74.8	28.7	48.2	16.9	15.7	21.0	11.0	40.5	46.8	13.6	15.9	24.4
1987	27.5	12.9	29.9	75.8	28.9	48.1	16.1	16.2	23.3	12.4	43.0	43.6	16.4	17.5	25.1
1988	28.7	13.9	29.1	75.9	38.8	47.5	19.4	18.1	25.1	14.7	40.5	42.6	18.9	19.4	25.9

Source: Computed from GATT, International Trade, 1989-90

15. Dedicated South-South inter-regional shipping services are limited to a few countries of origin and destination, such as Hong Kong, Republic of Korea, Singapore and Brazil, which are well connected by regular end-to-end services to most developing countries outside their respective regions. In addition, these countries provide transhipment links between countries in their regions to developing countries of other regions. However, the services to and from these countries appear to be geared mainly to their own national exports and imports, except for Singapore and Hong Kong which handle a substantial volume of pure South-South transhipment or re-export cargo.

16. As regards dedicated, end-to-end intra-regional services, in the African region, a limited number of services operate from North Africa to both West/Central Africa and Eastern/Southern Africa. However, in West/Central and Eastern/Southern Africa, there is an apparent shortage of intra-regional services; also direct services between Western/Central Africa and Eastern/Southern Africa are lacking. By and large, intra-African trade is largely dependent on wayport and transhipment services in mainline North-South operations. The situation in Latin America and the Caribbean is more or less similar to the one in Africa.

17. In the Asian region the volume of dedicated, purely intra-regional services is very substantial. The services are provided by inter-continental carriers which have branched into dedicated intra-Asian services and by a large number of regional commercial carriers. Thus the already existing large volume of wayports services is supplemented by a substantial volume of dedicated end-to-end intra-regional services.

18. In general, in the 1970s and 1980s, North-South trades had access to a greater volume of shipping services, for a given quantity of cargoes, than South-South trades. Furthermore, the high degree of dependency by South-South trade on mainline North-South shipping services, and the afore-mentioned limitations of such services, has implied that shipping services gave a competitive advantage to North-South trade over South-South trade.

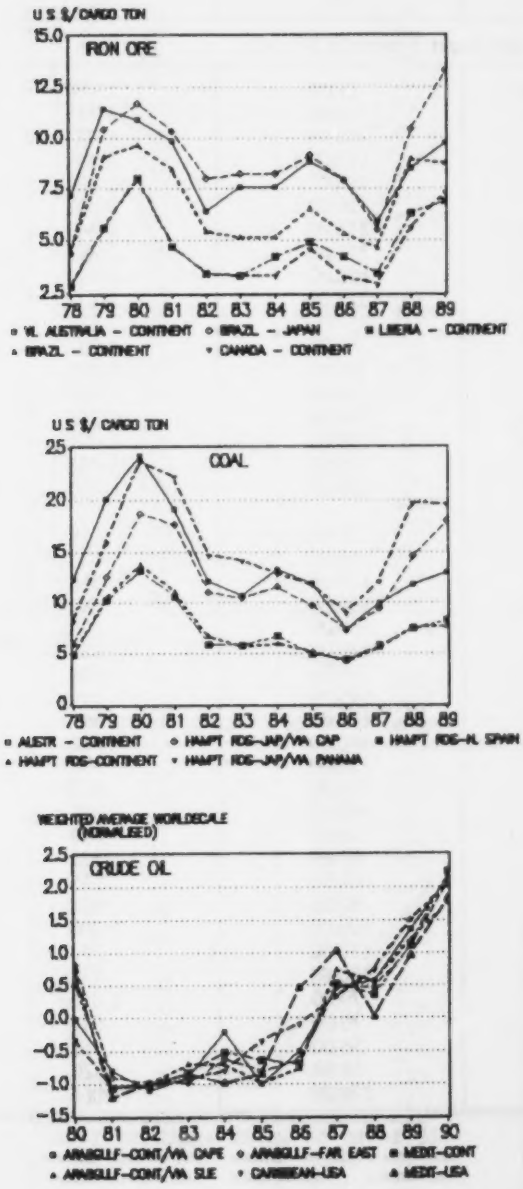
19. Like the liner trades, bulk trades also experienced an over-tonnaging situation in the 1970s and 1980s. An important feature of bulk shipping is that tonnage is constantly being reallocated to different geographical regions in response to geographical shifts in demand. This process, which is largely facilitated by spot chartering, makes it possible for bulk shipping markets to be "cleared". In view of this feature, the existence of a world-wide excess supply of tonnage meant that South-South bulk trades were not likely to have been constrained by tonnage supply any more than other trades. In this connection, figure 2 shows the levels of spot charter rates for selected bulk trades. It shows that for each of the three products included, the charter rates applicable to different trade routes generally tended to move in the same direction from the same turning points. This is a reasonable indication that within any given year all trade routes experience similar situations with regard to the balance between supply and demand. While the sample data do not compare directly rates between South-South rates and rates on other trade routes, it is most likely that the results reflect the world-wide situation, including spot charter rates in South-South trades.

20. In the past, in certain developing countries, the lack of a sufficient expansion in shipping services, including South-South services has partly been caused by restrictive shipping policies involving laws and regulations which reserved cargoes to specific national flag carriers or which restricted entry to a trade on the basis of a ship's registry. These restrictions tended to retard the expansion of services which would otherwise have occurred in accordance with shippers' requirements. Some of the developing countries have now adopted policy reforms which eliminate flag preferences and other government controls, although the full impact of such measures has yet to be fully realized.

21. Data on trade and freight rates, a sample of which is given in annex I, show that levels of liner freight rates for products entering South-South and North-South trade did not show significant changes between 1988 and 1991. The data also confirm the findings of earlier studies showing that freight rates absorb a substantial share of export earnings of developing countries. For example, as illustrated in table 3, for some products, freight rates represent over 50 per cent of the product value. The study also finds (as shown in table 3) that for identical products, freight factors (the ratios of freight rates to product values) are generally higher in South-South than in North-South trade; this is compatible with the findings of some earlier studies. The findings imply that freight costs tend to protect North-South exports against competing South-South exports.

Figure 2

Spot charter rates for selected bulk products and trade routes, 1978-1990



Source: Iron ore and coal rates based on H.P. Drewry reports, for crude oil based on Jacobs, World Tanker Fleet Review, various issues.

Table 3

Freight factors for selected North-South and South-South trades, 1988

Trade	Freight rate $US / ton (1)	F.o.b. unit $US (2)	Freight factor (1)/(2)x100
(a) Product: Paper and paper board (SITC 641)			
Belgium to Hong Kong	75.00	1 960	3.83
Germany to Indonesia	75.00	3 718	2.02
Spain to Brazil	230.00	4 427	5.20
France to Uruguay	195.00	2 980	6.54
Spain to Venezuela	310.00	2 401	12.91
France to Venezuela	310.00	1 292	23.99
Germany to Venezuela	245.00	2 540	9.65
Spain to Colombia	341.00	2 335	14.60
Germany to Colombia	195.00	2 971	6.56
Spain to Jamaica	357.00	1 153	30.96
France to Costa Rica	357.00	2 273	15.71
France to Morocco	70.00	4 974	1.41
France to Tunisia	61.00	1 023	5.96
France to Algeria	56.00	1 060	5.28
France to Saudi Arabia	130.00	1 338	9.72
France to Côte d'Ivoire	100.00	1 024	9.77
France to Cameroon	115.00	1 456	7.90
Germany to Mauritius	220.00	1 702	12.93
Argentina to Brazil	35.00	718	4.87
Argentina to Ecuador	110.00	621	17.71
Argentina to Peru	115.00	548	20.99
Argentina to Venezuela	140.00	582	24.05
Brazil to Egypt	160.00	534	29.96
Brazil to Morocco	150.00	888	16.89
Brazil to Hong Kong	155.00	609	25.45
Brazil to Indonesia	195.00	510	38.24
Brazil to Jordan	170.00	699	24.32
Brazil to Malaysia	190.00	592	32.09
Brazil to Pakistan	180.00	536	33.58
Brazil to Singapore	155.00	618	25.08
Brazil to Turkey	140.00	397	35.26
Chile to Argentina	58.00	673	8.62
Chile to Brazil	62.00	546	11.36
Chile to Colombia	61.00	545	11.19
Chile to Ecuador	60.00	608	9.87
Colombia to Ecuador	100.00	1 000	10.00
Colombia to Peru	110.00	797	13.80
Mexico to Brazil	160.00	537	29.80
Mexico to Colombia	79.00	1 836	4.30
Mexico to Peru	75.00	649	11.56
Mexico to Venezuela	56.00	617	9.08
Uruguay to Brazil	38.00	420	9.05
Uruguay to Peru	120.00	1 066	11.26

Source: Freight rates based on a field survey by the UNCTAD secretariat; F.O.B. unit values computed from United Nations Compressed Foreign Trade Data Bank (COMTRADE). For each product North-South trades are listed first.

Table 3 (continued)

Trade	Freight rate SUS / ton (1)	F.o.b. unit SUS (2)	Freight factor (1)/(2)x100
(b) Product: Glassware (SITC 665)			
France to Hong Kong	90	3 176	2.83
Germany to Thailand	90	6 321	1.42
France to Brazil	220	3 961	5.55
Spain to Uruguay	187	3 029	6.17
France to Venezuela	325	1 000	32.50
Spain to Venezuela	325	4 509	7.21
Germany to Venezuela	140	9 453	1.48
France to Colombia	357	4 301	8.30
Germany to Colombia	175	6 843	2.56
France to Barbados	373	6 352	5.87
France to Morocco	85	1 674	5.08
France to Tunisia	83	1 780	4.66
France to Algeria	68	1 739	3.91
France to Saudi Arabia	130	1 794	7.25
France to Bahrain	80	2 263	3.54
France to Côte d'Ivoire	125	1 419	8.81
France to Cameroon	160	1 857	8.62
Mexico to Morocco	138	1 534	9.00
Mexico to Brazil	125	599	20.87
Brazil to Morocco	180	624	28.85
Brazil to Colombia	270	3 438	7.85
Brazil to Peru	95	2 939	3.23
Brazil to Hong Kong	165	1 292	12.77
Argentina to Brazil	72	224	32.14
Argentina to Peru	90	4 538	1.98
(c) Product: Iron and steel (SITC 672)			
Germany to Thailand	55	222	24.77
Germany to Rep of Korea	140	1 768	7.92
France to Argentina	119	412	28.88
Spain to Venezuela	200	1 453	13.76
France to Colombia	220	403	54.59
France to Costa Rica	230	444	51.80
France to Morocco	25	416	6.01
France to Tunisia	44	398	11.06
France to Algeria	20	431	4.64
France to Saudi Arabia	75	393	19.08
France to Turkey	50	345	14.49
France to Côte d'Ivoire	95	1 370	6.93
Brazil to Argentina	50	304	16.45
Brazil to Chile	80	218	36.70
Brazil to Colombia	130	247	52.63
Brazil to Ecuador	128	219	58.45
Brazil to Uruguay	70	320	21.88
Brazil to Venezuela	105	197	53.30
Brazil to Hong Kong	130	216	60.19
Brazil to Indonesia	155	245	63.27
Brazil to Rep of Korea	145	209	69.38
Brazil to Malaysia	155	241	64.32
Brazil to Pakistan	160	202	79.21
Brazil to Singapore	130	209	62.20
Brazil to Turkey	125	193	64.77
Chile to Argentina	40	1 148	3.48
Mexico to Ecuador	70	287	24.39
Mexico to Peru	70	234	29.91
Venezuela to Ecuador	90	184	48.91
Venezuela to Turkey	145	148	97.97

Table 3 (continued)

Trade	Freight rate $US / ton (1)	F.o.b. unit $US (2)	Freight factor (1)/(2)x100
(d) Product: Fabrics, woven, man-made (SITC 653)			
Germany to Hong Kong	125	20 887	0.60
France to Brazil	315	41 716	0.76
Spain to Uruguay	268	16 435	1.63
France to Venezuela	515	74 184	0.69
Germany to Venezuela	305	34 292	0.89
Germany to Colombia	110	30 621	0.36
France to Morocco	115	14 004	0.82
France to Tunisia	55	11 763	0.47
France to Algeria	92	7 963	1.16
France to Saudi Arabia	185	39 298	0.47
France to Jordan	115	10 964	1.05
France to Cameroon	140	9 968	1.40
Germany to Mauritius	405	17 423	2.32
Argentina to Brazil	67	4 516	1.48
Brazil to Argentina	120	4 930	2.43
Brazil to Chile	160	6 230	2.57
Brazil to Colombia	190	6 355	2.99
Colombia to Chile	75	2 188	3.43
Mexico to Rep of Korea	75	7 156	1.05
Uruguay to Brazil	125	1 000	12.50
(e) Product: Machinery and parts (SITC 728)			
Germany to Indonesia	160	19 287	0.83
Spain to Brazil	450	14 016	3.21
France to Brazil	450	11 033	4.08
France to Argentina	383	12 301	3.11
Spain to Uruguay	383	86 432	0.44
Spain Venezuela	540	13 222	4.08
Germany to Venezuela	580	20 202	2.87
Netherlands to Venezuela	580	22 488	2.58
France to Colombia	594	11 776	5.04
Spain to Colombia	380	12 143	3.13
Spain to Mexico	621	69 064	0.90
France to Morocco	115	9 567	1.20
France to Tunisia	82	11 249	0.73
France to Algeria	92	8 929	1.03
France to Saudi Arabia	215	19 713	1.09
France to Syria	130	31 308	0.42
France to Côte d'Ivoire	355	11 671	3.04
France to Cameroon	410	8 457	4.85
Belgium to Mauritius	490	8 999	5.45
Germany to Mauritius	490	11 669	4.20
Argentina to Brazil	45	11 054	0.41
Argentina to Ecuador	125	9 220	1.36
Argentina to Peru	98	17 929	0.55
Argentina to Venezuela	120	5 848	2.05
Brazil to Argentina	50	8 468	0.59
Brazil to Chile	110	6 502	1.69
Brazil to Colombia	150	4 202	3.57
Brazil to Ecuador	150	5 619	2.67
Brazil to Peru	133	8 091	1.64
Brazil to Uruguay	90	3 665	2.46
Brazil to Venezuela	175	4 515	3.88
Brazil to Indonesia	190	5 332	3.56
Brazil to Rep of Korea	185	28 295	0.65
Colombia to Peru	138	13 316	1.04

22. The study also shows, as indicated in table 4, that in South-South trade, MFN tariffs are generally higher than South-South freight factors. This means that at least at the end of the 1980s, tariffs imposed by developing countries on each others' exports impeded South-South trade to a greater extent than did transport costs.

23. The present study does not provide an empirical assessment of the suggestion that freight factors escalate with a product's level of fabrication, although recent developments in liner shipping, particularly the widespread restructuring of tariffs and the use of freight-all-kind rates, would suggest that freight differentials between products have been substantially reduced. This would, in turn, minimize the escalation of freight factors according to the level of a product's processing or fabrication.

24. The importance of various attributes of transport services, such as sailing frequencies, reliability, flexibility, directness of sailings, transit times, etc., as compared to the importance of freight charges, has been enhanced by developments taking place in trading arrangements and in production technology. For example, the globalization of markets in world trade, the tendency for manufacturers to obtain inputs from multiple sources and the growing importance of just-in-time delivery systems, have increased the relative importance of frequency and reliability of transport services. Thus, transport services in South-South trade need improvements in order to meet the new transport requirements and to enhance the competitiveness of South-South trade.

Table 4

Freight factors and most favoured nation tariffs for selected South-South imports, 1988

Trade Origin/Destination	Freight rate $US/ton (1)	C.i.f. unit $US (2)	Freight factor (1)/(2)x100	MFN tariff % of value
(a) Product: Paper and paper board (SITC 641)				
Argentina to Brazil	35	666	5.26	36.10
Argentina to Ecuador	110	768	14.32	42.30
Argentina to Peru	115	930	12.37	48.00
Argentina to Venezuela	140	775	18.06	40.00
Brazil to Algeria	160	1 020	15.69	23.40
Brazil to Egypt	160	597	26.80	27.50
Brazil to Morocco	150	839	17.88	27.90
Brazil to Ecuador	152	909	16.72	42.30
Brazil to Peru	130	930	13.98	48.00
Brazil to Uruguay	110	791	13.91	23.80
Brazil to Venezuela	190	1 563	12.16	40.90
Brazil to Indonesia	195	671	29.06	21.90
Brazil to Jordan	170	787	21.60	8.70
Brazil to Pakistan	180	639	28.17	61.10
Chile to Argentina	58	831	6.98	24.50
Chile to Brazil	62	629	9.86	36.10
Chile to Colombia	61	623	9.79	17.90
Chile to Ecuador	60	661	9.08	42.30
Chile to Rep of Korea	140	261	53.64	21.50
Colombia to Ecuador	100	993	10.07	42.30
Colombia to Peru	110	978	11.25	48.00
Mexico to Brazil	160	619	25.85	36.10
Mexico to Colombia	79	1 940	4.07	17.90
Mexico to Peru	75	644	11.65	48.00
Mexico to Venezuela	56	657	8.52	40.80
Uruguay to Brazil	38	471	8.07	36.10
Uruguay to Peru	120	1 156	10.38	48.00
(b) Product: Glassware (SITC 665)				
Mexico to Brazil	138	2 634	5.24	67.10
Colombia to Chile	125	724	17.27	20.00
Brazil to Morocco	180	777	23.17	32.90
Brazil to Colombia	270	5 514	4.90	30.70
Brazil to Peru	95	5 206	1.82	53.50
Brazil to Uruguay	90	806	11.17	34.90
Brazil to Venezuela	175	2 799	6.25	70.40
Argentina to Brazil	72	237	30.38	67.10
Argentina to Peru	90	3 577	2.52	53.50
(c) Product: Iron and steel (SITC 672)				
Brazil to Argentina	50	302	16.56	29.50
Brazil to Chile	80	462	17.32	20.00
Brazil to Colombia	130	245	53.06	23.80
Brazil to Ecuador	128	295	43.39	0.00
Brazil to Uruguay	70	457	15.32	17.50
Brazil to Venezuela	105	233	45.06	5.60
Brazil to Indonesia	155	301	51.50	5.10
Brazil to Malaysia	155	288	53.82	2.60
Brazil to Pakistan	160	219	73.06	50.00
Brazil to Singapore	130	245	53.06	0.00
Chile to Argentina	40	1 142	3.50	29.50
Mexico to Ecuador	70	252	27.78	0.00
Mexico to Peru	70	871	8.04	32.80

Table 4 (continued)

Trade Origin/Destination	Freight rate $US/ton (1)	C.i.f. unit $US (2)	Freight factor (1)/(2)x100	MFN tariff % of value
(d) Product: Fabrics, woven, man-made (SITC 653)				
Argentina to Brazil	67	4 793	1.40	98.60
Brazil to Argentina	120	4 715	2.55	37.50
Brazil to Chile	160	5 970	2.68	20.00
Brazil to Colombia	190	5 295	3.59	53.20
Colombia to Chile	75	2 449	3.06	20.00
Uruguay to Brazil	125	675	18.52	98.60
(e) Product: Machinery and parts (SITC 728)				
Argentina to Brazil	45	9 958	0.45	44.90
Argentina to Ecuador	125	9 796	1.28	9.30
Argentina to Peru	98	17 140	0.57	38.10
Argentina to Venezuela	120	9 497	1.26	6.40
Brazil to Argentina	50	8 722	0.57	27.60
Brazil to Chile	110	5 739	1.92	15.30
Brazil to Peru	133	8 057	1.65	38.10
Brazil to Venezuela	175	4 304	4.07	6.30
Brazil to Indonesia	190	20 038	0.95	15.50
Colombia to Peru	138	13 207	1.04	38.10

Sources: Freight rates obtained from a field survey by the UNCTAD secretariat; c.i.f. unit values computed from the United Nations Foreign Trade Data Bank COMTRADE; MFN tariffs obtained from United Nations statistics.

D. Recommendations

25. While the main concern of the present report is South-South trade, the impact of the recommendations made cannot be limited to that trade. In this regard, the report itself found a considerable inter-relationship between transport services in South-South and other trades. Consequently, certain of the recommendations must be of a general nature and applicable to transport services as a whole.

26. To overcome the three main observed problems facing many South-South trades, namely (a) inadequacies of North-South wayport shipping services in serving South-South trade, (b) the limited volumes of dedicated South-South inter-regional and intra-regional shipping services and (c) the high freight costs which make South-South trade less competitive than North-South trade, various inter-related measures are recommended:

(i) The volume of dedicated South-South shipping services needs to be expanded since such services may be relatively advantageous in that they can be structured to the particular needs of South-South trade. In this connection, financing agencies and Governments of developing countries should promote the establishment of shipping enterprises to provide South-South inter-regional and intra-regional services. The establishment of such enterprises should be evaluated taking into account the vital interdependence between trade and the availability of transport services. [9] Assistance may be granted in the form of access to ship finance on preferential terms, and fiscal incentives such as tax exemptions.

(ii) As a complement to recommendation (i) above, developing countries should promote the expansion of transhipment/feeder shipping services to link up with wayport services provided by mainline North-South operators. A combination of feeder services and dedicated end-to-end South-South services may in many cases be an important strategy in building up economically viable South-South services. In pursuing this objective, negotiations for contracts or cooperative arrangements with mainline operators may become necessary to ensure access to the North-South cargoes.

(iii) In addition to receiving assistance in the form of capital finance, shipping enterprises offering dedicated South-South services would need to cooperate among themselves both for the purposes of investment funding and in service operations. Given the limited volumes of South-South trade, a significant degree of cooperation would be essential to make the enterprises viable. Cooperation, which may be bilateral or subregional, would improve the feasibility of the enterprises to acquire or charter vessels. It would enable them to have a larger cargo base, a reasonable cash flow and to benefit from economies of scale. At the operational level, it would allow them to rationalize the employment of equipment and manpower resources. Where necessary, at least in the initial stages, Governments could promote the necessary cooperation arrangements between enterprises.

(iv) Improvements in the packaging of cargoes in South-South trade, particularly through containerization, should be encouraged. This would minimize some of the operational constraints encountered by mainline North-South operators offering wayport South-South services. A shift from break-bulk to container packing would in most cases only require an adaptation to technologies which already exist in the industry.

(v) Shipping policies which restrict competition in shipping services, such as cargo reservation, and which adversely affect the growth of services, should be reformed in order to provide an environment which would allow commercial incentives for an expansion of services, including those in South-South trade.

(vi) However, a reform of shipping policies may need to be supported by public incentives whereby protected shipping enterprises would be allowed to develop the necessary technical know-how and achieve growth to levels which would permit them to operate on a commercial basis. The incentives may include assistance in the acquisition of capital resources or fiscal incentives as suggested in (i) above.

(vii) Shippers in developing countries should cooperate for the purpose of consolidating cargoes in South-South trade at the national or subregional level in order to achieve lower freight rates and thus make them more competitive *vis-à-vis* freight rates prevailing in North-South trades. While at the micro level, consolidation of less-than-container load (LCL) into full-container load (FCL) is being undertaken by freight forwarders and non-vessel-operating common carriers (NVOCCs), at the macro level the issue becomes one of attaining higher load factors on whole ships in order to attain lower freight rates for the trade as a whole.

(viii) While shippers in developing countries may be familiar with their long-established markets in North-South trades, assistance would be required to enable them to obtain suitable transport services in South-South trade where the transport services and the information about them are relatively underdeveloped. It would therefore be essential for shippers' councils to provide information, education and other forms of assistance to shippers in order to enable them to develop the necessary experience in arranging shipments in South-South trades. [9]

(ix) In developing countries there is generally a demand for improvements in the facilitation of multimodal transport, customs procedures, port tariffication, freight-forwarding activities and maritime legislation. However this demand is more pronounced in South-South trade where institutions to cater for such trade are not well developed. Consequently, greater attention would need to be given to these improvements in relation to South-South trade.

(x) To enhance the opportunities for the above recommendations to be implemented, it would be essential to establish a system of coordination at the national as well as at the regional and inter-regional levels. Some coordination may be achieved by the creation of forums where interested parties may formulate joint programmes to solve common transportation problems. Some countries have established trade and transportation facilitation committees for coordination. To be effective, such committees need to be sufficiently representative by including representatives of government, transport users, chambers of commerce, port authorities, customs officials, freight forwarders, etc. In this connection, these recommendations should be brought to the attention of Governments and the relevant commercial parties and consideration should be given to the establishment of trade and transportation facilitation committees where they do not yet exist.

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Notes

1. For a discussion concerning these arguments, see Greenaway (1990).

2. Throughout this report, the expression North-South is used to mean both North to South and South to North trading relations. The expressions "North" and "South" have been defined in the explanatory notes at the beginning of the report.

3. Based on IMF data (Direction of Trade Yearbook, 1991), between 1978 and 1990 total developing country exports grew by an average annual rate of 9 per cent while their imports grew by an average of 8.7 per cent. Out of the total, exports and imports among the developing countries themselves grew by 12 and 8.8 per cent, respectively. Their exports to and imports from DMECs increased by 11.8 and 7.7 per cent, respectively. Therefore, trade among developing countries increased faster than their total trade with the world and also faster than their trade with DMECs. However, the growth of the intra-developing country trade was on a much smaller base than the trade with DMECs; as a result, trade with DMECs remained substantially larger than South-South trade in absolute terms.

4. For additional data, see also "Trade expansion among developing countries: constraints and measures to overcome them", Report by the UNCTAD secretariat, TD/B/1260, and "A global system of trade preferences among developing countries", Report by the UNCTAD secretariat, TD/B/C.7/36/Add.1.

5. See, for example, Yeats and Sampson (1977, 1978), Yeats (1976, 1977a, 1977b), Clark (1981), McFarland (1985), Conlon (1982) and Langhammer (1983). Some of the studies have shown that transport costs tend to absorb a large share of export earnings, especially those of the developing countries. Others have also shown that freight factors (the ratio of freight rate to product value) on exports from developing countries to given import markets tend to be higher than corresponding freight factors for products from other export sources to the same import markets. Others have suggested that in many trades transport costs are a bigger impediment to trade than MFN tariffs, although this conclusion has not been made with regard to South-South trade. Still others have suggested that the protective effects of transport costs on exports tend to escalate as products attain higher stages of processing or fabrication, a factor that may discourage developing countries from expanding their trade in manufactured or semi-manufactured goods.

6. Previous studies have focused on the influence of transport costs but have not examined the influence of the volume of transport supply as a separate determinant of trade.

7. South-South and North-South trade flows can readily be identified from published trade statistics. However, the same grouping of countries may not easily apply to shipping services, in particular to the Far East where Japan (a developed market economy country) shares the same mainline shipping services with the Republic of Korea, Hong Kong, etc. which are classified as developing countries. Nevertheless, detailed information on shipsailings is available to allow identification of services available to individual countries.

8. The interdependence between transport and trade exists because in order to expand South-South trade exporters or shippers need to be assured of the availability of transport services. Conversely, providers of transport services establish services when there is sufficient demand for their services to justify the necessary investment.

9. It should be noted that in many developing countries a large share of exports are sold on f.o.b. terms while imports are bought on c.i.f. terms; a result developing-country exporters and importers have relatively limited experience in making shipping arrangements.

Annex I

Ocean freight rates for selected trades and commodities
(1988 and 1991)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
(a) Ocean freight rates for exports of glassware (SITC 665) for selected liner trades				
North to South exports				
France to Hong Kong	900	90	900	90
Germany to Thailand	900	90	900	90
France to Brazil	2 200	220	2 300	230
Spain to Uruguay	1 870	187	1 955	195
France to Venezuela	-	325	2 700	270
Spain to Venezuela	-	325	2 700	270
Germany to Venezuela	2 600	140	2 500	130
France to Colombia	-	357	2 970	297
Germany to Colombia	-	175	-	230
France to Barbados	-	373	3 105	310
Netherlands to Jamaica	3 885	-	3 735	-
France to Morocco	375	85	520	115
France to Tunisia	-	83	-	83
France to Algeria	300	68	416	92
France to Saudi Arabia	1 300	130	1 050	105
France to Bahrain	800	80	950	95
France to Côte d'Ivoire	1 300	125	1 160	130
France to Cameroon	1 450	160	1 690	125
United Kingdom to Senegal	-	-	2 160	-
United Kingdom to Nigeria	-	-	1 980	-
United Kingdom to Cameroon	-	-	2 070	-
United Kingdom to Kenya	-	-	1 450	-
South-South exports				
Republic of Korea to Hong Kong	-	-	450	-
Republic of Korea to Malaysia	-	-	820	-
Republic of Korea to Pakistan	-	-	1 100	-
Republic of Korea to Singapore	-	-	740	-
Thailand to Hong Kong	-	-	750	-
Thailand to Republic of Korea	-	-	750	-
Mexico to Morocco	2 600	-	2 100	-
Mexico to Brazil	-	138	-	100
Colombia to Chile	-	125	-	117
Colombia to Ecuador	1 700	-	1 500	-
Brazil to Morocco	-	180	-	170
Brazil to Barbados	2 700	-	2 600	-
Brazil to Colombia	-	270	-	260
Brazil to Jamaica	2 700	-	2 600	-
Brazil to Peru	-	95	-	95
Brazil to Trinidad and Tobago	3 000	-	2 600	-
Brazil to Uruguay	-	90	-	80
Brazil to Venezuela	-	175	-	162
Brazil to Hong Kong	-	165	-	150
Argentina to Brazil	-	72	-	60
Argentina to Peru	-	90	-	80
Ecuador to Peru	-	-	1 320	132
Ecuador to Hong Kong	-	-	-	194

Annex I (continued)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
(b) Ocean freight rates for exports of paper board (SITC 641) for selected liner trades				
North to South exports				
Belgium to Hong Kong	750	75	750	75
Germany to Indonesia	750	75	750	75
Spain to Brazil	2 300	230	2 200	220
France to Uruguay	1 955	195	1 870	187
Spain to Venezuela	-	310	2 600	260
France to Venezuela	-	310	2 600	260
Germany to Venezuela	1 750	245	1 450	250
Spain to Colombia	-	341	2 860	286
Germany to Colombia	-	195	2 100	245
Spain to Jamaica	-	357	2 990	299
France to Costa Rica	-	357	2 990	299
Germany to Trinidad and Tobago	1 985	-	1 910	-
France to Morocco	525	70	700	95
France to Tunisia	-	61	-	61
France to Algeria	420	56	560	76
France (Med) Saudi Arabia	1 300	130	1 050	105
France to Near East	800	80	950	95
France to Côte d'Ivoire	1 600	100	1 580	95
France to Cameroon	2 400	115	2 000	-
Germany to Mauritius	2 195	220	2 140	215
United Kingdom to Senegal	-	-	1 980	-
United Kingdom to Ghana	-	-	1 800	-
United Kingdom to Kenya	-	-	-	-
South-South exports				
Republic of Korea to Egypt	-	-	2 000	-
Republic of Korea to Morocco	-	-	2 100	-
Republic of Korea to Indonesia	-	-	820	-
Republic of Korea to Malaysia	-	-	820	-
Republic of Korea to Oman	-	-	1 475	-
Republic of Korea to Pakistan	-	-	1 100	-
Republic of Korea to Philippines	-	-	700	-
Republic of Korea to Singapore	-	-	740	-
Thailand to Korea	-	-	750	-
Thailand to Hong Kong	-	-	750	-
Thailand to Indonesia	-	-	1 525	-
Ecuador to Chile	-	-	1 467	108
Ecuador to Peru	-	-	1 320	94
Ecuador to Hong Kong	-	-	-	100
Argentina to Brazil	-	35	-	26
Argentina to Ecuador	-	110	-	100
Argentina to Peru	-	115	-	105
Argentina to Venezuela	-	140	-	110
Brazil to Algeria	-	160	-	160
Brazil to Egypt	-	160	-	160
Brazil to Morocco	-	150	-	150
Brazil to Ecuador	-	152	-	152

Annex I (continued)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
Brazil to Jamaica	2 500	-	2 200	-
Brazil to Peru	-	130	-	130
Brazil to Trinidad and Tobago	2 500	-	2 200	-
Brazil to Uruguay	-	110	-	110
Brazil to Venezuela	-	190	-	170
Brazil to Hong Kong	-	155	-	140
Brazil to Indonesia	-	195	-	176
Brazil to Jordan	-	170	-	155
Brazil to Malaysia	-	190	-	170
Brazil to Pakistan	-	180	-	160
Brazil to Singapore	-	155	-	140
Brazil to Turkey	-	140	-	130
Chile to Argentina	2 200	58	2 000	58
Chile to Brazil	2 200	62	2 000	62
Chile to Morocco	-	61	-	58
Chile to Ecuador	-	60	-	55
Chile to Peru	1 500	-	1 100	60
Chile to Republic of Korea	-	140	2 260	120
Colombia to Ecuador	-	100	-	96
Colombia to Peru	1 800	110	1 800	100
Mexico to Brazil	-	160	-	112
Mexico to Colombia	-	79	-	69
Mexico to Peru	-	75	-	65
Mexico to Venezuela	-	56	-	56
Mexico to Republic of Korea	2 000	-	1 700	-
Uruguay to Brazil	-	38	-	26
Uruguay to Paraguay	-	50	-	45
Uruguay to Peru	-	120	-	110
Venezuela to Egypt	4 500	-	4 500	-
Venezuela to Barbados	1 600	-	1 000	-
Venezuela to Jamaica	2 000	-	1 200	-
Venezuela to Trinidad & Tobago	1 200	-	1 200	-
(c) Ocean freight rates for exports of iron and steel (SITC 672) for selected liner trades				
North to South exports				
Germany to Thailand	950	55	9 520	55
Germany to Republic of Korea	2 350	140	2 000	115
France to Argentina	1 998	119	1 700	97
Spain to Venezuela	-	200	2 800	165
Germany to Venezuela	2 400	105	2 400	100
France to Colombia	-	220	3 080	182
France to Costa Rica	-	230	3 220	189
Germany to Jamaica	1 550	-	1 490	-
France to Morocco	445	25	615	30
France to Tunisia	-	44	-	44
France to Algeria	356	20	492	24
France to Saudi Arabia	1 300	75	1 050	60

Annex I (continued)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
France to Turkey	800	50	950	55
France to Côte d'Ivoire	-	95	-	85
United Kingdom to Nigeria	-	-	1 800	-
South-South exports				
Republic of Korea to Argentina	-	-	3 400	-
Republic of Korea to Hong Kong	-	-	450	-
Republic of Korea to Indonesia	-	-	820	-
Republic of Korea to Malaysia	-	-	820	-
Republic of Korea to Philippines	-	-	700	-
Republic of Korea to Singapore	-	-	740	-
Brazil to Argentina	-	50	-	45
Brazil to Chile	-	80	-	73
Brazil to Colombia	-	130	-	100
Brazil to Ecuador	-	128	-	128
Brazil to Jamaica	3 000	-	2 700	-
Brazil to Uruguay	-	70	-	70
Brazil to Venezuela	-	105	-	95
Brazil to Hong Kong	-	130	-	120
Brazil to Indonesia	-	155	-	140
Brazil to Republic of Korea	-	145	-	130
Brazil to Malaysia	-	155	-	140
Brazil to Pakistan	-	160	-	145
Brazil to Singapore	-	130	-	120
Brazil to Turkey	-	125	-	110
Chile to Argentina	-	40	-	40
Chile to Ecuador	1 500	-	1 300	-
Mexico to Ecuador	-	70	-	60
Mexico to Peru	-	70	-	60
Mexico to Hong Kong	1 900	-	1 600	-
Mexico to Malaysia	2 300	-	2 000	-
Mexico to Indonesia	2 500	-	2 300	-
Venezuela to Ecuador	-	90	-	90
Venezuela to Hong Kong	3 000	-	3 000	-
Venezuela to Turkey	-	145	-	125
(d) Ocean freight rates for exports of machinery and parts (SITC 728) for selected liner trades				
North-South exports				
Germany to Indonesia	950	160	1 050	175
Spain to Brazil	2 700	450	2 500	415
France to Brazil	2 700	450	2 500	415
France to Argentina	2 295	383	2 125	353
Spain to Uruguay	2 295	383	2 125	353
Spain to Venezuela	-	540	2 700	450
Germany to Venezuela	4 000	580	3 900	540
Netherlands to Venezuela	4 000	580	3 900	540
France to Colombia	-	594	2 970	495

Annex I (continued)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
Spain to Colombia	-	380	-	350
Spain to Mexico	-	621	3 105	517
Germany to Jamaica	2 550	-	2 450	-
Germany to Trinidad and Tobago	2 550	-	2 450	-
France to Morocco	605	115	805	155
France to Tunisia	-	82	-	82
France to Algeria	484	92	644	124
France to Saudi Arabia	1 300	215	1 050	175
France to Syrian Arab Republic	800	130	950	160
France to Côte d'Ivoire	3 250	355	2 840	305
France to Cameroon	3 500	410	2 700	370
Belgium to Mauritius	2 950	490	2 875	480
Germany to Mauritius	2 950	490	2 875	480
United Kingdom to Senegal	-	-	2 160	-
United Kingdom to Nigeria	-	-	2 160	-
United Kingdom to Cameroon	-	-	2 070	-
United Kingdom to Kenya	-	-	1 600	-
South-South exports				
Republic of Korea to Egypt	-	-	2 100	-
Republic of Korea to Brazil	-	-	3 300	-
Republic of Korea to Chile	-	-	3 750	-
Republic of Korea to Peru	-	-	3 500	-
Republic of Korea to Venezuela	-	-	3 000	-
Republic of Korea to Hong Kong	-	-	450	-
Republic of Korea to Indonesia	-	-	820	-
Republic of Korea to Malaysia	-	-	820	-
Republic of Korea to Pakistan	-	-	1 100	-
Republic of Korea to Philippines	-	-	900	-
Republic of Korea to Singapore	-	-	740	-
Thailand to Hong Kong	-	-	800	-
Thailand to Indonesia	-	-	1 650	-
Sri Lanka to Singapore	-	-	935	-
Argentina to Brazil	-	45	-	40
Argentina to Ecuador	-	125	-	110
Argentina to Peru	-	98	-	90
Argentina to Venezuela	-	120	-	95
Brazil to Argentina	-	50	-	45
Brazil to Chile	-	110	-	110
Brazil to Colombia	-	150	-	135
Brazil to Ecuador	-	150	-	150
Brazil to Peru	-	133	-	133
Brazil to Trinidad and Tobago	3 000	-	2 600	-
Brazil to Uruguay	-	90	-	90
Brazil to Venezuela	-	175	-	162
Brazil to Indonesia	-	190	-	170
Brazil to Republic of Korea	-	185	-	170
Colombia to Peru	-	138	-	125

Annex I (continued)

Trade	Freight rates			
	1988		1991	
Country of origin/destination	$US per TEU	$US per ton	$US per TEU	$US per ton
(e) Ocean freight rates for exports of fabrics, woven, man-made (SITC 653) for selected liner trades				
North-South exports				
Germany to Hong Kong	900	125	950	135
France to Brazil	2 200	315	2 200	315
Spain to Uruguay	1 870	268	1 870	268
France to Venezuela	-	515	3 000	430
Germany to Venezuela	-	305	-	300
Germany to Colombia	-	110	2 700	370
France to Morocco	605	115	805	155
France to Tunisia	-	55	-	55
France to Algeria	484	92	644	124
France to Saudi Arabia	1 300	185	1 050	150
France to Jordan	800	115	950	135
France to Côte d'Ivoire	-	-	-	115
France to Cameroon	1 790	140	1 900	150
Germany to Mauritius	2 830	405	2 760	395
United Kingdom to Nigeria	-	-	1 980	-
United Kingdom to Kenya	-	-	1 550	-
South-South exports				
Republic of Korea to Morocco	-	-	3 500	-
Republic of Korea to Barbados	-	-	3 300	-
Republic of Korea to Brazil	-	-	3 750	-
Republic of Korea to Chile	-	-	2 500	-
Republic of Korea to Jamaica	-	-	2 900	-
Republic of Korea to Trinidad and Tobago	-	-	3 000	-
Republic of Korea to Venezuela	-	-	450	-
Republic of Korea to Hong Kong	-	-	-	-
Republic of Korea to Pakistan	-	-	820	-
Republic of Korea to Indonesia	-	-	820	-
Republic of Korea to Malaysia	-	-	1 475	-
Republic of Korea to Oman	-	-	1 100	-
Republic of Korea to Pakistan	-	-	700	-
Republic of Korea to Philippines	-	-	740	-
Republic of Korea to Singapore	-	-	2 500	-
Republic of Korea to Turkey	-	-	1 950	-
Republic of Korea to Yugoslavia	-	-	2 450	-
Thailand to Morocco	-	-	750	-
Thailand to Hong Kong	-	-	1 525	-
Thailand to Indonesia	-	-	2 675	-
Thailand to Jordan	-	-	750	-
Thailand to Republic of Korea	-	68	-	50
Argentina to Brazil	-	67	-	60
Brazil to Argentina	-	120	-	118
Brazil to Chile	-	160	-	140
Brazil to Colombia	-	190	-	175
Brazil to Venezuela	2 000	-	1 800	-
Colombia to Chile	-	75	-	65
Mexico to Colombia	1 900	-	1 600	-
Mexico to Hong Kong	2 000	-	1 700	-
Mexico to Republic of Korea	-	75	-	67
Uruguay to Brazil	900	125	950	135

Source: Field survey conducted by the UNCTAD secretariat.